

10 EOS

ONLINE SEARCH REQUEST FORM

08/828143

USER Ivan L. HaySERIAL NUMBER 171293ART UNIT 11.1PHONE 312-747-2222DATE 4/1/98

Please give a detailed statement of requirements. Describe as specifically as possible the subject matter to be searched. Define any terms that may have special meaning. Give examples or relevant citations, authors, or keywords, if known.

You may include a copy of the broadest and/or relevant claim(s).

Please search insiphus, Beets, beet pulp, horse
Agaricola etc.

for position of:
- hair loss
- dried yeast
- 3.4% in

- specifically

- Edible bark husk

- 15% protein

- Leavening agent

- Saccharomyces
- baker
- brewer?

for Bo food

- health

- nutrition

- degree, lactose, maltodextrin

- preservative food

1. Ingestion

***** * * * * *

STAFF USE ONLY

COMPLETED 7/14/98
SEARCHER Ivan L. Hay
ONLINE TIME 16 TOTAL TIME 16
(in minutes)
NO. OF DATABASES _____

SYSTEMS

- CAS ONLINE
 DARC/QUESTEL
 DIALOG
 SDC
 OTHER

=> fil caplus,.biotech .ids,uspatful,agricola

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=> s (bacteri? or lactobacill? or streptoco? or pediococ? or leuconosto?) and
(dried yeast or (brewer? or baker)(w)yeast)

L1 300 FILE CAPLUS
L2 90 FILE BIOSIS
L3 19 FILE MEDLINE

L4 34 FILE EMBASE
L5 44 FILE WPIDS
L6 708 FILE USPATFULL
L7 23 FILE AGRICOLA

TOTAL FOR ALL FILES

L8 1218 (BACTERI? OR LACTOBACILL? OR STREPTOCO? OR PEDIOCOC? OR
LEUCONOSTO?) AND (DRIED YEAST OR (BREWER? OR BAKER) (W)
YEAST)

=> s 18 and (protein or (whey or soy) (w)protein)

L9 59 FILE CAPLUS
L10 20 FILE BIOSIS
L11 10 FILE MEDLINE
L12 15 FILE EMBASE
L13 6 FILE WPIDS
L14 383 FILE USPATFULL
L15 3 FILE AGRICOLA

TOTAL FOR ALL FILES

L16 496 L8 AND (PROTEIN OR (WHEY OR SOY) (W) PROTEIN)

=> s 116 and (food or health or nutrition? or lactose intoler? or preserv?)

L17 7 FILE CAPLUS
L18 7 FILE BIOSIS
L19 0 FILE MEDLINE
L20 2 FILE EMBASE
L21 3 FILE WPIDS
L22 265 FILE USPATFULL
L23 0 FILE AGRICOLA

TOTAL FOR ALL FILES

L24 284 L16 AND (FOOD OR HEALTH OR NUTRITION? OR LACTOSE INTOLER?
OR PRESERV?)

=> s 124 and hsia h?/au,in

L25 0 FILE CAPLUS
'IN' IS NOT A VALID FIELD CODE
L26 0 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L27 0 FILE MEDLINE
'IN' IS NOT A VALID FIELD CODE
L28 0 FILE EMBASE
L29 0 FILE WPIDS
L30 0 FILE USPATFULL
'IN' IS NOT A VALID FIELD CODE
L31 0 FILE AGRICOLA

TOTAL FOR ALL FILES

L32 0 L24 AND HSIA H?/AU,IN

=> s houn h?/au,in and 124

L33 0 FILE CAPLUS
'IN' IS NOT A VALID FIELD CODE
L34 0 FILE BIOSIS
'IN' IS NOT A VALID FIELD CODE
L35 0 FILE MEDLINE

'IN' IS NOT A VALID FIELD CODE
L36 0 FILE EMBASE
L37 0 FILE WPIDS
L38 0 FILE USPATFULL
'IN' IS NOT A VALID FIELD CODE
L39 0 FILE AGRICOLA

TOTAL FOR ALL FILES
L40 0 HOUN H?/AU, IN AND L24

=> fil caplus,.biotech,wpids,agricola

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FILE 'AGRICOLA' ENTERED AT 14:17:40 ON 14 APR 1998

=> s 124

L41 7 FILE CAPLUS
L42 7 FILE BIOSIS
L43 0 FILE MEDLINE
L44 2 FILE EMBASE
L45 3 FILE WPIDS
L46 0 FILE AGRICOLA

TOTAL FOR ALL FILES
L47 19 L24

=> dup rem 147

PROCESSING COMPLETED FOR L47
L48 18 DUP REM L47 (1 DUPLICATE REMOVED)

=> d 1-18 cbib abs

L48 ANSWER 1 OF 18 CAPLUS COPYRIGHT 1998 ACS
1995:416439 Document No. 122:169714 Cosmetic preparation containing
oxygenated fluorocarbon, phospholipid, and plant, yeast, or
bacterial cell contents. Zastrow, Leonhard; Golz, Karin;
Stanzl, Klaus (Lancaster Group AG, Germany). Ger. Offen. DE 4327679
A1 950216, 7 pp. (German). CODEN: GWXXBX. APPLICATION: DE
93-4327679 930813.
AB A compn. contg. nutrients, effectors, and protectants for the skin
comprises an O-loaded fluorocarbon as O carrier, phospholipids in
the form of asym. lamellar aggregates with a skin permeability
dependent on the crit. solv. temp. of the fluorocarbon, products

from gentle disruption of plant, yeast, or **bacterial** cells by sonication or high-pressure homogenization, and suitable cosmetic or dermatol. carriers. Thus, a suspension of **bakers'** yeast 23.5 in glycerin 10.0, propylene glycol 5.5, and water 61 wt.% was sonicated and centrifuged to yield an ext. contg. Zn,Cu-superoxide dismutase, vitamins A, B, and E, etc. This ext. was combined with an emulsion contg. fluorocarbon (perfluorodecalin + perfluorodibutylmethylamine, 90:10) 62, soybean lecithin (contg. 40% phosphatidylcholine) 9.7, and EtOH 19%, and this mixt. was added to an oil-in-water emulsion contg. glyceryl stearate 3.5, stearic acid 2.0, cetyl alc. 2.0, dimethinocon (sic) 1.5, Carbomer 0.7, propylene glycol 3.0, **preservative** 0.5, and water to 100.0%.

L48 ANSWER 2 OF 18 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 93-018406 [02] WPIDS

AB ZA 9104877 A UPAB: 930924

A foodstuff comprises sweet whey powder, oats, wheat germ, seeds, nuts, fruit, a **bacterial** milk culture, and a natural **preservative**. Also claimed is a foodstuff comprising 8-14 wt.%, 9-15 wt.% **proteins**, 75-85 wt.% carbohydrates and assorted mineral with the ratio of satd. to unsatd. fats 1:1 to 1:3.

The foodstuff pref. includes **brewers yeast**.

The seeds include linseeds, sunflower seeds, and sesame seeds. The nuts include peanuts and almonds. The **bacterial** milk culture is acidophilus. The foodstuff also includes a coconut derivative, an artificial sweetener and vanilla sticks. The oats includes rolled oats and oat bran. A pref. foodstuff includes 15-28 (esp. 19-25, more esp. 22) vol.% sweet whey powder, 15-35 (esp. 20-30, more esp. 25) vol.% oats, and 4-15 (esp. 7-12, more esp. 9) vol.% wheat germ. The ratio of rolled oats to oat bran is 1:1.8 to 1:2.2 by vol.. The seeds constitute 10-30 (esp. 15-25) vol.% seeds (esp. 5-8 vol.% each of sunflower seeds, sesame seed and linseeds), and nuts constitute 4-15 (esp. 5-8) vol.% of the foodstuff.

USE/ADVANTAGE - The foodstuff is esp. in the form of a breakfast cereal and provides a correct balance of **protein**, fats and carbohydrates and at the same time contains essential nutrients such as vitamins, unsatd. fatty acids and minerals. The foodstuff promotes digestion and enables optimal utilisation of the nutrients. (Reissue of the entry advised in week 9222 based on complete specification)

0/0

L48 ANSWER 3 OF 18 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 90-298006 [40] WPIDS

AB DD 278058 A UPAB: 930928

In the formation of **protein-enriched food** additives, oil and leguminous seeds, esp soya beans or broad beans, undergo a 6-24 hours treatment by mixed cultures of **lactobacillus plantarum**, **lactobacillus coryniformis**, **saccharomyces cerevisiae** and **oospora lactis**, pref in **dried yeast** form for the starting culture.

Growth stimulation is provided by (1) enzyme complexes for breaking down carbohydrates. (2) exogenous sources of C or N, or (3) polyanionis cpds intended to form insoluble **protein** complexes. The finally formed prod is pasteurised, conc and/or dried. Fermentation takes place in a buffer soln of basic salts maintaining pH initially at 5.0-6.0 and then 3.0-4.0 in the second fermentation phase.

Examples of the three stimulator types are (1) cellulases of **aspergillus terreus**; (2) Waste or by-prods of fruit, vegetable,

grain or flesh origin; (3) pectin or pectic acid.

ADVANTAGE - Anti-nutrient raw material contents are metabolised, and polysaccharides converted to N cpds, leaving a high quality prod.

0/0

L48 ANSWER 4 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS

91:226307 Document No.: BA91:117767. SEARCH FOR FULL-VALUED

SUBSTITUTES OF MAIZE MEAL AND FOOD YEAST IN BACTOCULICIDE

PRODUCTION. OSADCHAYA A I; POKOPCHENKO S F; KOSTYUCHENKO I P;

VASILEVSKAYA I A; MIKHNOVSKAYA N D; LYSENKO L N. INST. MICROBIOL.

VIROL., ACAD. SCI. UKR. SSR, KIEV, USSR. MIKROBIOL ZH (KIEV), 52

(5). 1990. 30-34. CODEN: MZHUDX; ISSN: 0201-8462. Language: Russian

AN 91:226307 BIOSIS

AB The paper deals with growth and development of *Bacillus thuringiensis* H14 266/2-1 on the media with different kinds of carbohydrate-containing raw materials (molasses, hydrolysates of rice straw, xylem), as well as the waste of breweries (surplus **brewers yeast**, rinsing yeast waters, **protein** residue). It

is shown possible to use in the composition of nutrient media the studied kinds of carbohydrate-containing raw-materials as the source of carbon **nutrition** with the less yield of **bacteria** biomass destructive for mosquito larvae as compared to the variant of the use of maize meal fermentolysate. It is established that industrial waste of brewery rich in **protein** substances may be used as the source of amine nitrogen for cultivation of *B. thuringiensis* H14 266/2-1 and are perspective kind of raw material for the substitution of **food** yeast in production of bacto-culicide.

L48 ANSWER 5 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS

89:55681 Document No.: BA87:31681. ANAEROBIC TREATMENT OF

PROTEIN-CONTAINING WASTE WATERS CORRELATION BETWEEN COENZYME

F-420 AND METHANE PRODUCTION. SCHULZE D; MENKHAUS M; FIEBIG R;

DELLWEG H. FACHGEBEIT BIOTECHNOLOGIE DER TECHNISCHEN UNIVERSITAET

BERLIN, INSTITUT FUER GARUNGSGEWERBE UND BIOTECHNOLOGIE, SEESTRASS

13, D-1000 BERLIN-65, FGR. APPL MICROBIOL BIOTECHNOL, 29 (5). 1988.

506-510. CODEN: AMBIDG; ISSN: 0175-7598. Language: English

AN 89:55681 BIOSIS

AB Anaerobic treatment of gelatine-containing model waste water and baker's yeast manufacturing effluent was investigated in upflow anaerobic sludge blanket (UASB) reactors. During start up a correlation between coenzyme F420 content and methane production in the reactor was observed. By monitoring coenzyme F420 concentrations a certain prediction of methanogenic activities was possible.

L48 ANSWER 6 OF 18 WPIDS COPYRIGHT 1998 DERWENT INFORMATION LTD

AN 87-353467 [50] WPIDS

AB NL 8700788 A UPAB: 930922

Food base materials with a high **protein** and vitamin content and with a dry solids content of more than 20% are made from agricultural prods. with a high cellulose content by hydrolysing the corresponding parts of the material having a high cellulose content at 40-60 deg. C in a suspension which contains 0.1-5.0% green malt or malt w.r.t. the dry solids of the fermentation broth, to form mono- or disaccharides, adding nutrient salts to the resulting fermentation broth, which contains more than 20% dry solids, and fermenting **bakers yeast** (*Saccharomyces cerevisiae*) in the broth at pH 5.5-6.5 and a temp. of 25-35 deg. C using semi-continuous fermentation.

USE/ADVANTAGE - Low temp. enzymatic hydrolysis of the

cellulose-contg. material is used to form high concns. of water soluble directly assimilable sugars; fermentation is carried out using readily available baker's yeast (*Saccharomyces cerevisiae*); alcohol prodn. can be kept to below 0.1%; infection with pathogenic bacterial wild yeast is excluded; the process gives a high solids content prod.; the prod. is cheaper to produce than extracted soya protein and has a very similar aminoacid constitution.

0/0

L48 ANSWER 7 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS

87:420153 Document No.: BA84:86815. KINETICS OF ENZYMATIC LYSIS AND DISRUPTION OF YEAST CELLS I. EVALUATION OF TWO LYtic SYSTEMS WITH DIFFERENT PROPERTIES. HUNTER J B; ASENJO J A. BIOCHEM. ENG. LAB., UNIV. READING, P.O. BOX 226, READING, RG6 2AP, ENGLAND. BIOTECHNOL BIOENG, 30 (4). 1987. 471-480. CODEN: BIBIAU; ISSN: 0006-3592.

Language: English

AN 87:420153 BIOSIS

AB Many microorganisms produce enzymes which lyse the walls of yeasts, fungi, and bacteria. The proportions of different enzyme activities present in the lytic system, their action patterns, synergism, and dependence on inhibitors, constitute the activity profile of the lytic system. Taken together, the activity profile and process conditions for lysis determine the reaction rate and the distribution of products from lysis of any given type of cells. Kinetics of glucan hydrolysis, proteolysis, and lysis of brewer's yeast were compared for two extracellular yeast-lytic enzyme systems with different properties. The enzyme sources used were filtered culture broths from *Cytophaga* sp. NCIB 9497 grown in batch culture and from *Oerskovia xanthineolytica* LL-G109, grown under carbon limitation in continuous culture. Rate and extent of cell hydrolysis, and the accumulation of soluble proteins, peptides, and carbohydrates from the lysed yeast cells, are discussed in terms of the activity profiles and potential applications of the two enzyme systems.

L48 ANSWER 8 OF 18 CAPLUS COPYRIGHT 1998 ACS

1983:421166 Document No. 99:21166 Treatment of yeasts, single cell organisms, and casein by heating with sugar and other compounds. Payne, Michael (Institute for Industrial Research and Standards, Ireland, Ire.). Brit. UK Pat. Appl. GB 2107567 A1 830505, 5 pp. (English). CODEN: BAXXDU. APPLICATION: GB 82-28588 821006. PRIORITY: IE 81-2352 811008.

AB A process for rendering yeast and bacterial (single-cell) protein and casein suitable for animal consumption comprises heating the yeast, bacteria, or casein in an aq. medium contg. a sugar or starch [9005-25-8] or polyhydric alc. at a temp. high enough for cell wall dissoln. or protein dispersion (>80.degree.) but sufficiently low to prevent burning or caramelizing of the additives (<145.degree.). The product has numerous applications as a food or feed additive. Thus, sucrose [57-50-1] (74 parts) was added to 27 parts dried yeast creamed with 40 parts water and stirred during heating at 105-115.degree.. A noncaramelized malt-flavored product in the form of a thick syrup is obtained which may be mixed with oatmeal in the prodn. of a breakfast cereal.

L48 ANSWER 9 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS

81:273953 Document No.: BA72:58937. USE OF ENZYMATIC HYDROLYSATES OF MICROBIAL BIOMASS IN MEDIA FOR CULTIVATING STREPTOCOCCUS -LACTIS WHICH PRODUCES NISIN. BARANOVA I P; EGOROV N S; GOLOVKINA G

P; GRIGORYAN A N. LAB. ANTIBIOT., M.V. LOMONOSOV MOSC. UNIV.,
MOSCOW, USSR. ANTIBIOTIKI (MOSC), 25 (10). 1980 (RECD. 1981).
735-738. CODEN: ANTBAL; ISSN: 0003-5637. Language: Russian

AN 81:273953 BIOSIS

AB Fermentative hydrolysates (FH) of the **protein-vitamin** complex (PVC) were used for the 1st time in media for cultivation of *S. lactis*. The FH may be used in the media for cultivation of **streptococci** as a source of N instead of the yeast autolysate from baker's yeast and the level of nisin biosynthesis did not change. The replacement of the yeast autolysate by the FH is possible in both flasks with low volumes of the medium and 401 fermenters with 25 l of the medium. The BVC FH is not a **food** raw material and its cost is low, which makes it advantageous.

L48 ANSWER 10 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS

80:221482 Document No.: BA70:13978. **BACTERIOLOGICAL QUALITY** OF RAW MATERIALS USED IN FINNISH MINK FEED. JUOKSLAHTI T. FINN. FUR BREED. ASSOC., FEED LAB., BOX 92, 65 101 VAASA 10, FINL. ACTA VET SCAND, 20 (4). 1979 (RECD. 1980). 562-571. CODEN: AVSCA7; ISSN: 0044-605X. Language: English

AN 80:221482 BIOSIS

AB Mink feed raw materials were analyzed for total **bacterial** count, the number of fecal **streptococci**, the coliform count, the number of hemolytic **bacteria** and the number of sulfite reducing **bacteria**. The investigation comprised samples from the following raw materials: 4 slaughter-house offal products, **preserved** and unpreserved slaughter blood, Baltic herring, cod filletting offal, fish silage, blood meal, fish meal, meat-bone meal, **protein** concentrate, brewer's yeast and cereal feed. The slaughter-house offals and unpreserved slaughter blood had the poorest quality, in terms of all the **bacterial** types for which the samples were analyzed. There were statistically significant differences in **bacterial** contents between slaughter-house offals from different sources. The **preserved** slaughter blood had significantly lower **bacterial** contents as compared to the unpreserved slaughter blood. Single samples of the cod filletting offal, Baltic herring and the blood meal had relatively high total **bacterial** counts, but the specified mean **bacterial** counts were relatively low. The **bacterial** counts for the rest of the investigated raw materials were relatively low.

L48 ANSWER 11 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS DUPLICATE 1

79:244765 Document No.: BA68:47269. **BACTERIOLOGICAL SURVEY** OF 60 **HEALTH FOODS**. ANDREWS W H; WILSON C R; POELMA P L; ROMERO A; MISLIVEC P B. DIV. MICROBIOL., FOOD DRUG ADM., WASHINGTON, D.C. 20204, USA. APPL ENVIRON MICROBIOL, 37 (3). 1979. 559-566. CODEN: AEMIDF; ISSN: 0099-2240. Language: English

AN 79:244765 BIOSIS

AB A **bacteriological** survey was performed on 1960 **food** samples encompassing 60 types of **health foods** available in the Baltimore-Washington, D.C., metropolitan area [USA]. No consistent **bacteriological** distinction (aerobic plate counts, total coliform and fecal coliform most probable numbers) was observed between **foods** labeled as organic (raised on soil with compost or nonchemical fertilizer and without application of pesticides, fungicides and herbicides) and their counterpart **food** types bearing no such label. Types and numbers of samples containing *Salmonella* were: sunflower seeds, 4; soy flour, 3; soy **protein** powder, 2; soy milk powder, 1; dried active yeast, 1; **brewers' yeast**, 1; rye flour, 1;

brown rice, 1; and alfalfa seeds, 1. The occurrence of this pathogen in 3 types of soybean products should warrant further investigation of soybean derivatives as potentially significant sources of *Salmonella*.

L48 ANSWER 12 OF 18 BIOSIS COPYRIGHT 1998 BIOSIS
78:78690 Document No.: BR15:22190. **BACTERIOLOGICAL SURVEY OF HEALTH FOODS.** ANDREWS W H; WILSON C R; POELMA P L; ROMERO A; MISLIVEC P. ABSTR ANNU MEET AM SOC MICROBIOL, 78.1978189 CODEN: ASMACK; ISSN: 0094-8519. Language: Unavailable
AN 78:78690 BIOSIS

L48 ANSWER 13 OF 18 CAPLUS COPYRIGHT 1998 ACS
1977:599131 Document No. 87:199131 Studies of the hydrolysis of **bakers' yeasts** by complex enzymic preparations.
Yanchevskii, V. K.; Kovalenko, A. D.; Babin, N. A. (Ukr. Nauchno-Issled. Inst. Spirt. Prom., Kiev, USSR). Fermentn. Spirt. Prom-st. (7), 27-9 (Russian) 1977. CODEN: FSPMAM.
AB The **bacterial** enzyme prepns. Protosubtilin G3x at 0.2 unit/g yeast **protein** solubilized 70% of the dry mass of **bakers' yeast** in 24 h in a reaction mixt. of 300 g yeast/L. Amylosubtilin G10x-1 and Amylorizin P10x were somewhat less efficient. The hydrolysis had to be carried at slight acid pH to avoid melanin formation which would have decreased the **food** value of the hydrolyzate.

L48 ANSWER 14 OF 18 EMBASE COPYRIGHT 1998 ELSEVIER SCI. B.V.
75199631 EMBASE Extraction of **protein** components from yeast and **bacterial** biomass for **nutritional** purposes (Russian). Rogozhin S.V.; Mamtsis A.M.; Valkovsky D.G.. Inst. Elemento Organ. Compounds, USSR Acad. Sci., Moscow, USSR. PRIKL.BIOKhim.MIKROBIOL. 10/6 (841-846) 1974.
CODEN: PBMIAK. Language: Russian.
AB The extraction of **protein** and nuclei acids from **brewers' yeast**, *Saccharomyces cerevisiae*, disintegrated in aqueous and non aqueous media, was studied. During the 20 min extraction of both disintegrates with 0.4% alkali at pH 12.0 about 80% of the **protein** and 90% of the nucleic acids of the biologic mass entered the solution. The distribution of total **proteins** and nucleic acids was measured in each fraction of disintegrates of yeast and **bacterial** biologic masses. **Protein** isolates obtained from different biologic masses with approx 60% yield had a high nutritive value. The effect of the conditions of extraction on the content of accessible lysine in the **protein** was studied.

L48 ANSWER 15 OF 18 CAPLUS COPYRIGHT 1998 ACS
1973:419127 Document No. 79:19127 **Protein** from microorganisms. Mogren, Hakan Lars; Hedenskog, Gudmund Osear; Enebo, Lennart Eugen (SCP-Exploatering AB). Ger. Offen. DE 2248994 730419, 11 pp. (German). CODEN: GWXXBX. PRIORITY: SE 71-12836 711011.
AB **Protein** (I) with low nucleic acid content, useful for human **nutrition**, was extd. from yeasts, **bacteria**, or algae. Thus, 10 kg (dry wt.) **bakers' yeast** was suspended in water to give a vol. of 100 l., ground in a ball mill, and centrifuged at pH 11.5. From the upper phase, I was pptd. by heating at 90.degree. and centrifuged after water addn. to five a concn. of 3 kg dry wt., contg. 0.5% RNA and 53% crude I.

L48 ANSWER 16 OF 18 CAPLUS COPYRIGHT 1998 ACS

1975:441925 Document No. 83:41925 Polypeptides and **proteins**
as growth factors for Aposymbiotic blattella germanica. Brooks,
Marion A.; Kringen, Wendell B. (Dep. Entomol., Fish. Wildl., Univ.
Minnesota, St. Paul, Minn., USA). Insect Mite Nutr.: Significance
Implic. Ecol. Pest Manage., Top. Pap. Int. Conf., 353-64.
Editor(s): Rodriguez, J. G. North-Holland: Amsterdam, Neth.
(English) 1972. CODEN: 30PLAH.

AB The German cockroach, *B. germanica*, normally contains numerous symbiotic **bacteria** in specialized cells of the fat body. Const. feeding of Aureomycin prevents egg infection, resulting in a generation of symbiose-deficient offspring. The aposymbiotic nymphs die if fed a stock diet such as dog biscuit, or they survive for long periods without growing if they are maintained on a casein stock diet. However, the addn. of one part of **brewers' yeast** to 3 parts of the casein diet, or 1 part of lyophilized mouse liver to 9 parts of casein diet, enabled the aposymbiotic nymphs to grow. Their growth on the liver supplement was equal to that of normal symbiotic nymphs. Growth factor was not in any of the following: B-vitamins, fresh apples, dehydrated egg yolk, wheat germ, leaf factor (Cerophyll), alc.-insol. liver ext., yeast sterols, yeast nucleic acid, choline, carnitine, and the amino acids tryptophan, phenylalanine, tyrosine, methionine, and cysteine or cystine. Growth factor was present in milk fraction, hydrolyzed lactalbumin, and in .beta.-lactoglobulin, a constituent which can be crystd. out of lactalbumin. Growth factor was also present in a meat infusion prep., proteose peptone Difco. The action of these **protein** fragments or polypeptides seems comparable to that of strepogenin.

L48 ANSWER 17 OF 18 CAPLUS COPYRIGHT 1998 ACS
1972:499970 Document No. 77:99970 **Nutritional** value of nutrient yeast **protein**. I. Amino acid composition and biological value of **protein**. Buraczewski, Stanislaw; Lubaszewska, Stefania; Pastuszewska, Barbara; Buraczewska, Lucyna (Inst. Fizjol. Zywienia Zwierzat, Pol. Akad. Nauk, Pol.). Roczn. Nauk Roln., Ser. B, 94(1), 111-21 (Polish) 1972. CODEN: RNRBAS.

AB The **nutritional** value of **protein** in 17 samples of nutrient yeasts of different origin was estd. in expts. with rats. Chem. and total amino acid compn. as well as available lysine, methionine, and tryptophan contents were detd. in samples representing all types of the yeasts under study. Relative nutritive value for **Streptococcus** zymogenes was also evaluated. The apparent digestibility of yeast **protein** ranged 66.8-81.2 and the biol. value 32.3-59.1. The sample of **brewers yeast** was of the highest **nutritional** value expressed in terms of NPU (48.1) followed by yeast produced on molasses and sulfite liquor. A significant pos. correlation between biol. value and the S-contg. amino acid content was obsd. The availability of lysine detd. by a chem. method was very low.

L48 ANSWER 18 OF 18 CAPLUS COPYRIGHT 1998 ACS
1968:21039 Document No. 68:21039 Oily cake proteolyzates. Balatti, Antonio P.; Ertola, Rodolfo J. (Univ. Nacl., La Plata, Argent.). Ind. Quim., 24(1), 44-6 (Spanish) 1965. CODEN: IYQBAZ.

AB **Torulopsis utilis** or **bakers' yeast** was used as proteolytic agents for soybean or sunflower oily cakes. The resulting proteolyzates stimulated growth of **Lactobacillus delbrueckii**. Either soybean or sunflower proteolyzates added in the ratio of 3% to the normal diet stimulated chicken growth.